

CLAIMS

What is claimed is:

1 1. A computer implemented method comprising:
2 receiving a first set of data from a network process;
3 determining death of the network process;
4 clearing the first set of data if a time period expires; and
5 synchronizing the first set of data with a second set of data if the time period does
6 not expire, the second set of data received from the network process after
7 the network process restarts.

1 2. The computer implemented method of claim 1 further comprising indicating the
2 first set of data as stale when the network process is determined to be dead.

1 3. The computer implemented method of claim 1 wherein expiration of the time
2 period is determined with a timer maintained after the network process is determined to
3 be dead.

1 4. The computer implemented method of claim 1 wherein the first set of data and the
2 second set of data are synchronized after a done signal is received.

1 5. The computer implemented method of claim 1 further comprising restoring a set
2 of configurations to the network process after the network process restarts.

1 6. The computer implemented method of claim 1 further comprising clearing the
2 second set of data if the time period expires and a done signal is not received.

1 7. A computer implemented method comprising:
 2 detecting death of a process;
 3 restarting the network process;
 4 restoring a set of configurations to the network process;
 5 if a first set of data is generated before a time period expires, then synchronizing
 6 the first set of data with a second set of data, the second set of data having
 7 been generated before the death of the network process; and
 8 if the time period expires, then clearing the second set of data.

1 8. The computer implemented method of claim 7 further comprising indicating the
 2 second set of data as stale when the network process is detected as dead.

1 9. The computer implemented method of claim 7 wherein expiration of the time
 2 period is determined with a timer incremented after the network process is detected to be
 3 dead.

1 10. The computer implemented method of claim 7 wherein the first set of data and the
 2 second set of data are synchronized after a done signal is received.

1 11. The computer implemented method of claim 7 further comprising clearing the
 2 second set of data if the time period expires and a done signal is not received.

1 12. A network element comprising:

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2 a cross connect control module to host a first and second network process, the
3 first network process to generate a first set of data after restarting and the
4 second network process to synchronize the first set of data with a second
5 set of data generated by the first network process before restarting upon
6 determining a time period has not expired, the time period beginning when
7 the first network process dies; and
8 a traffic card coupled to the cross connect module, the traffic card to process a set
9 of traffic with the synchronized first and second set of data.

1 13. The network element of claim 12 wherein the cross connect module comprises a
2 first and second memory to host the first and second network process.

1 14. The network element of claim 12 wherein the traffic card comprises a set of
2 processors to process the first and second set of data.

1 15. The network element of claim 12 wherein the cross connect module comprises:
2 a first memory to host the first network process;
3 a second memory coupled to the first memory, the second memory to host the
4 second network process; and
5 a third memory coupled to the first and second memory, the third memory to store
6 the first set of data, second set of data, and the synchronized set of data.

1 13. A network element comprising:
2 a first processor to execute a first and second network process, the first network
3 process to generate a first set of data before restarting and a second set of
4 data after restarting, the second network process to synchronize the first
5 and second set of data upon determining a time period has not expired, the
6 time period beginning when the first network process dies; and

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7 a second processor coupled to the first processor, the second processor to process
8 a set of traffic using the first set of data before the first network process
9 restarts and the third set of data after the first network process restarts.

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1 14. The network element of claim 13 wherein the first processor comprises a memory
2 to store the first, second and third set of data.

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1 15. The network element of claim 13 further comprising the first processor to allocate
2 a first memory to the first network process and a second memory to the second network
3 process.

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1 16. The network element of claim 13 further comprising the first processor to allocate
2 a first memory to the first network process, a second memory to the second network
3 process, and a third memory to store the first set of data, the second set of data, and the
4 third set of data.

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1 17. A network element comprising:
2 a first memory to host a first network process, the first network process to
3 generate a first set of data before restarting and a second set of data after
4 restarting;
5 a second memory coupled to the first memory, the second memory to host a
6 second network process, the second network process using the first and
7 second set of data if a time period has not expired, the time period
8 beginning when the first network process dies; and
9 a third memory coupled to the first and second memory, the third memory to store
10 the first set of data before the first network processes restarts and to store a

11 synchronized set of the first and second set of data after the first network
12 process restarts.

1 18. The network element of claim 17 wherein the first memory, the second memory
2 and the third memory are main memory.

1 19. The network element of claim 17 wherein the first memory, the second memory,
2 and the third memory are mass storage.

1 20. The network element of claim 17 wherein the first memory, the second memory,
2 and the third memory are a set of regions of a memory.

1 21. A system comprising:
2 a first network element to execute a first network process the first network
3 process to generate a first set of data before restarting and a second set of
4 data after restarting; and
5 a second network element coupled to the first network element, the second
6 network element to execute a second network process, to determine the
7 first network process died, to start a counter upon determining the first
8 network process has died, to store the first and second set of data, and to
9 synchronize the first and second set of data upon determining the counter
10 has not exceeded a time period.

1 22. The system of claim 21 wherein the second network element comprises:
2 a first memory to store the first set of data and the synchronized set of data; and
3 a second memory to store the second set of data.

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1 23. The system of claim 21 further comprising the second network element to clear
2 the first and second set of data if a time period expires.

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1 24. The system of claim 21 further comprising the second network element to mark
2 the first set of data as stale when the first network process dies.

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1 25. A machine-readable medium that provides instructions, which when executed by
2 a set of processors of one or more processors, cause said set of processors to perform
3 operations comprising:
4 receiving a first set of data from a network process;
5 determining death of the network process;
6 clearing the first set of data if a time period expires; and
7 synchronizing the first set of data with a second set of data if the time period does
8 not expire, the second set of data received from the network process after
9 the network process restarts.

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1 26 The machine-readable medium of claim 25 further comprising indicating the first
2 set of data as stale when the network process is determined to be dead.

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1 27. The machine-readable medium of claim 25 wherein expiration of the time period
2 is determined with a timer maintained after the network process is determined to be dead.

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1 28. The machine-readable medium of claim 25 wherein the first set of data and the
2 second set of data are synchronized after a done signal is received.

1 29. The machine-readable medium of claim 25 further comprising restoring a set of
2 configurations to the network process after the network process restarts.

1 30. The machine-readable medium of claim 25 further comprising clearing the second
2 set of data if the time period expires and a done signal is not received.

1 31. A machine-readable medium that provides instructions, which when executed by
2 a set of processors of one or more processors, cause said set of processors to perform
3 operations comprising:
4 detecting death of a process;
5 restarting the network process;
6 restoring a set of configurations to the network process;
7 if a first set of data is generated before a time period expires, then synchronizing
8 the first set of data with a second set of data, the second set of data having
9 been generated before the death of the network process; and
10 if the time period expires, then clearing the second set of data.

1 32. The machine-readable medium of claim 31 further comprising indicating the
2 second set of data as stale when the network process is detected as dead.

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1 33. The machine-readable medium of claim 31 wherein expiration of the time
2 period is determined with a timer incremented after the network process is detected to
3 be dead.

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1 34. The machine-readable medium of claim 31 wherein the first set of data and the
2 second set of data are synchronized after a done signal is received.

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1 35. The machine-readable medium of claim 31 further comprising clearing the
2 second set of data if the time period expires and a done signal is not received.

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